AUGUST.

The usual monthly meeting was held on Tuesday. There was a fair attendance of Fellows, and a few ladies. The chair was taken by Mr. T. Stephens, M.A., F.G.S. The Hon. Sir Jas. Wilson Agnew, K.C.M.G., M.D., M.E.C., and Mr. Jas. Barnard wrote apologising for their absence.

The Secretary, Mr. A. MORTON, read a circular from Mr. Shirley, secretary to the Australasian Association for the Advancement of Science, which meets at Brisbane on January 11, 1895, and following days, soliciting the assistance of Fellows in making the meeting a success, and promising them a cordial reception. Railway and steamboat fares would be reduced to visitors. Mr. Morton stated that Professor McAulay and Mr. Fincham, Engineer-in-Chief, would read papers at the Brisbane meeting.

Mr. Robert Henry was unfortunately detained by heavy weather in the Straits Islands, consequently the reading of his paper "On a new method of dropping the time ball" was postponed.

GLACIATION ON THE WEST COAST.

Mr. MORTON, on behalf of Mr. T. B. Moore, read a paper on "Further discoveries of glaciation in Tasmania." The paper was lengthy, but most interesting. The writer commented on papers read by himself and other Fellows on the same subject at previous meetings of the Society. A number of specimens of rocks subjected to glacial action accompanied the paper, and were used to illustrate the writer's observations.

The CHAIRMAN briefly reviewed the paper, and explained the difference between conglomerates and morains, and their probable origin.

THE PROTECTION OF MUTTON BIRDS AND SEALS.

Bishop MONTGOMERY read the following paper :—

In the course of my annual trips to the Furneaux Islands I have obtained information from those whose knowledge of the habits of the sooty petrel can be relied upon, and I beg now to lay before the Society some further results based upon personal observation and on inquiries among the half-castes, in order to supplement what I read on a previous occasion on the same subject. The following is an accurate statement of that wonderful rush of these birds to their breeding places every evening till the whole colony takes its departure. On Goose Island, evening after evening, I ensconced myself under a rock for five days, noting every indication of the habits of these birds. The sooty petrel returns to its hole in silence, except in the case of a few belated individuals, who indulge in a hoarse cackle as they fly to and fro, apparently unable to find their holes at once when the night is very dark. On one occasion I took up a position, watch in hand, on a rising ground, from which I could overlook the whole rookery, as well as the sea on both sides of the island. It was in the month of February. At 6.35 p.m. not a petrel was to be seen anywhere, though I could see for miles on all sides. At 6.40 the first bird came into view. At 6.43 the sun disappeared; 6.48, sunset from the top of the lighthouse and the light flashed out; Cape Barren geese heard in the distance settling for the night. 6.53, the first petrel flew rapidly over the island without settling. 6.56, the numbers so great that I stopped counting, unable to do so. 6.58, the birds now so numerous that their flight was bewildering. 7.6, the numbers at their maximum. 7.30, nearly all the birds had arrived,

and now the underground noises were most extraordinary, as oil was being poured down the throats of tens of thousands of young birds, apparently to their intense satisfaction after their 24 hours' fast. I desire also to place on record the following fuller statement of the sooty petrel at an earlier period of its annual sojourn amongst us. I believe the facts can be relied upon as correct. In September mutton birds come back to us to dig their holes. Where they have been since the previous May no one seems to know with certainty. I have interrogated captains of many ships whether they have ever been seen by them in these winter months. In all cases they have replied in the negative. And it seems we are forced to the conclusion that they betake themselves towards the South Pole. After digging their holes they vanish for about a fortnight, after that they reappear to lay their eggs. The female soon loses her condition and betakes herself to the sea for about a week, not returning during the interval. Meanwhile the male bird sits upon the egg, and he in turn is relieved by the female in order to recover his condition. The egg is hatched in about five weeks. When the young bird appears both parents return every evening to feed their offspring. For most of the time the birds desert the vicinity of their breeding places during the day, but in the Furneaux Islands during the prevalence of easterly and south-easterly weather the parent birds keep near home, the reason being, as is supposed, that this wind brings them especially large quantities of their food. It was remarked to me also by some of the most experienced hands that after a continuance of south-easterly weather they always expect to obtain a larger quantity of oil from the birds. When the young bird is taken and killed he is carefully spitted on a stick and kept head upwards till about 50 are obtained, when the worker squeezes the oil from them, and sends them away to be plucked and salted. Every year one or two white specimens of this bird are seen. I am doing my utmost to obtain one for this museum. To turn now to the practical working of the Act passed some two years ago for the protection of the mutton bird industry, there is no doubt at all that the provisions of the Act have been most beneficial, and, practically speaking, if the regulations are fairly carried out, the petrels will never leave these islands, nor will they diminish in numbers. There are a few points, however which deserve the attention of our legislators. At present there is no restriction placed on the number of persons permitted to bird on any island ; some day trouble may arise. It is certain that if the number of workers were doubled the industry would be endangered. Secondly, there is a feeling among some of those engaged in the industry that the old birds should be protected, certainly while they are feeding their young, possibly whilst they are hatching their eggs. At present they may be taken at either period for consumption on the spot. Certainly to leave the young bird to die of starvation is contrary to the dictates of humanity. It might be wise to make a regulation that no old birds were to be taken after a fixed day in January. This would prevent the death by starvation of young petrels.

THE SEALING INDUSTRY.

As the seal rocks are now to be thrown open once more to sealers after a close time of about three years, it may be of interest to the Society if I lay before its members the suggestions made by sealers and others for the protection of the industry. Mr. Maclaine, of Clarke Island, advocates the protection of female seals altogether, following the law that obtains in the Behring Straits. On the other hand, the most thoughtful of the sealers themselves assert that this would virtually stop sealing, inasmuch as the female seal is much more numerous on the rocks than the male ; but whether this last

assertion is true I am not in a position to say. But whilst these men do not wish to be altogether debarred from killing female seals, they view with abhorrence the destruction of the females whilst their young are dependent upon them. More than one of them has described how heartrending are the cries of the little seal left to starve on the rocks before it can take to the water. These people advocate a close time for seals every year, namely, the period when the pups are being suckled and before they take to the water. The time they suggest is November, December, and half January. This is the season when the seals are easily killed, since they will not leave their young. Before the young seals are born, apparently, the females can take very good care of themselves. The Tasmanian sealers look with apprehension also upon the advent of vessels from New Zealand. They tell a story (I give it as I heard it) that the crew of one of these foreign vessels once succeeded in extending a strong rope net of some sort round a rock and then proceeded to kill everything upon it. The story at least points to some very complete system of destruction put in operation by these energetic foreigners. Without doubt we have arrived at a critical epoch in the history of our seals. They are once again extremely abundant, and wise regulations, framed without loss of time, may save an interesting inhabitant of our seas and protect a valuable industry as well.

Mr. BERNARD SHAW stated that the mutton birds are protected by existing regulations all the year round, excepting from March to May. The proposal now is to protect the young birds and stop the destruction of the eggs. This will be met by the new regulations. Birds sitting and feeding their young must also not be taken. With regard to seals, the regulations which have been in existence since 1891 expired on July 25th. The Commissioners of Fisheries have not yet been able to bring the new regulations into force, but he hoped that when they were in force they would be in operation for a long time. Fur seals only were protected, and of those the females were entirely protected, as were the young under 10 months. The regulations would be made to apply to Macquarie Island, so as to strengthen the hands of the New Zealand Government, who protected seals in their own waters, and when they discovered skins suspected to be "poached" they were told the seals were captured on Macquarie Island.

Mr. A. MORTON also spoke on the subject, and pointed out that the Tasmanian fur seal, though not so valuable as the Alaska species, was the true fur seal of commerce. There was no reason why the seals should not return in the great numbers of early days so soon as they were protected. The sealer had no better friend than Mr. Bernard Shaw, while the industry itself could be developed into a very important one. It should not be overlooked that the protection of the seal was helping the half-caste.

ADDITIONS TO THE MUSEUM.

Mr. MORTON laid on the table a number of interesting curios sent by Rev. John Chalmers from New Guinea and the Fly River district, which included a drum, bone daggers, stone axes, and other articles. A very fine pair of horns of an Indian bison, presented and shot by Colonel Cox, was also inspected by the Fellows. Colonel Cox gave some interesting particulars of the animal under discussion, and stated that its habitat was in the Sheveroy Hills, Madras Presidency, where he had shot similar animals, and bagged one of the best pair of horns ever taken in India.

The proceedings concluded with votes of thanks to the readers of papers, the donors of the additions to the Museum, and the Chairman.